

Need For Spear - Inertia Modified Version

Alkan Akısu, Beyza Gündoğın ,Burak Yıldırım,
Gizem Güneş, İsmail Hakkı Yeşil, Yusuf Erdemirler

Koç University
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Introduction:

As team Inertia, we read the project documents and implemented our project accordingly. However, in the earlier stage of development, we saw that changing small things will make our project much better such as ball speed, ability UI, etc. After that, we talked with our T.A. and he stated that if we justify our changes, we can modify Need For Spear. This writing aims to state and justify our changes and explain our controls for edit and play modes.

Building mode:

In edit mode, the player can specify the number of obstacles, if they give less value than it should be, an error message pop up. The player can put different types of obstacles by pressing S for simple obstacle, F for firm obstacle, G for gift obstacle, and lastly E for the explosive obstacle then clicking to an area with the left mouse click. Collusions of obstacles are handled according to the given project description. The player can also remove any obstacle with the right mouse click. The player can choose to save or load the game in edit mode. Both save and load buttons pop up a login screen for username input. Save method save the current layout to a file name with username.json to DatabaseFiles, load method loads the layout, remaining chances, score, obtained magical abilities.

Play mode:

In-play mode, we saw that given speeds in the project description are too slow and took the fun of the fast-paced Need For Sphere game. We increased the Enchanted Sphere and Noble Phantasm's speed to achieve this goal. We saw that this makes the game much more fun to play.

Rotation of the Noble Phantasm was an addition we implemented. This gives a newer and interesting way to play the game. Even though the gift obstacle was on the project description, it wasn't required for the Phase 1 demo. We wanted to implement every obstacle type and we added gift obstacles. We implemented the abilities that are dropped from broken gift obstacles. Since we are working ahead of the Phase 1 demo, we played with the abilities. Unstoppable Enchanted Sphere and Magical Hex abilities are implemented accordingly to the project description but we tested stacking Noble Phantasm Expansion (1->2L, 2->4L ...). This was fun at first but broke the game since with that a player can easily reflect every dropped thing on the screen. So we reverted this change and make it just expand the Noble Phantasm only 1 time. We also added a simple UI for showing which ability the player has.

Another change we did was the score mechanics of the game. We implemented a scoring formula with time as the main component like in the project description, but this was weird. Both Breakout and other games like breaking bricks with a ball-like object have scoring formulas accordingly to obstacle types. For example, breaking simple obstacles and gift obstacles at the same time on different games shouldn't give the same score. We believed that every obstacle has a different value accordingly to obstacle type and these scores shouldn't be dependent on time. This score mechanic rewards breaking obstacle faster since more elapsed time means less score [$\text{NewScore} = \text{OldScore} + 300 / (\text{CurrentTime} - \text{GameStartingTime})$], denominator gives very small values after some time] This makes players make more mistakes to break more obstacles on earlier stages of the game. Because of the given reasons above in our version simple obstacle gives 10, firm obstacles give 10*life, explosive obstacles give 15 and gift obstacles give 20 points.